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(54) Title: PROCESS FOR THE SYNTHESIS OF PHENOL AND ACETONE

(57) Abstract: This invention refers to a process for the synthesis of phenol and acetone starting from cumene hydroperoxide, and to a plant specifically developed for performing this process. More in particular, this invention refers to a process for the synthesis of phenol and acetone starting from cumene hydroperoxide, comprising the following steps: a) Pretreating of the starting cumene hydroperoxide with acidic resins, to obtain cumene hydroperoxide free of inorganic cations; b) Decomposing of the cumene hydroperoxide free of inorganic cations originating from the step (a) in the presence of acidic resins, to yield phenol and acetone.

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# INTERNATIONAL SEARCH REPORT

International Application No

PATENT 02/00156

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07C37/08 C07C45/53 C07C39/04 C07C49/08 B01J31/10  
B01J19/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07C B01J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, EPO-Internal, PAJ, COMPENDEX, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|------------|--|-----------------------|
| X          | EP 0 367 408 A (TEXACO DEVELOPMENT CORP)<br>9 May 1990 (1990-05-09)<br>page 2, line 1 - line 7   | 1,4-9                 |
| Y          | page 3, line 47 - page 4, line 21<br>page 5, line 44 - line 53<br>page 7, line 36 - line 58<br>claims 1,3,8,9; examples 2-19,21,22;<br>tables I-IV                               | 10-13                 |
| X          | US 3 037 052 A (BORTNICK NEWMAN M)<br>29 May 1962 (1962-05-29)<br>column 2, line 27 - line 41<br>column 3, line 66 - column 4, line 44<br>column 23, line 20 - line 53; claim 26 | 1,4-9                 |
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
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| X          | column 1, line 6 - line 15<br>column 2, line 64 - line 68<br>column 3, line 32 - line 39<br>column 4, line 59 - column 6, line 15;<br>figure 2<br>----- | 14, 15                |
| X          | US 4 404 409 A (FUJIWARA YASUO ET AL)<br>13 September 1983 (1983-09-13)<br>column 5, line 8 - line 45<br>column 8, line 42 - line 57; figures<br>-----  | 14, 15                |

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Information on patent family members

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| Patent document<br>cited in search report |   | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
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